

Application No. 10/658,139
Reply to Decision On Appeal of June 23, 2011, and
Final Office Action of April 3, 2008

REMARKS / ARGUMENTS

The present application includes pending claims 1-37, of which claims 32-37 are new claims. Claims 1, 11 and 21 have been amended to clarify the claim language. The Applicant points out that the amendments to independent claims 1, 11 and 21, are supported at least in Applicant's Fig. 5, and the related descriptions (i.e., paragraphs [68] and [73]). The new dependent claims 32-37 are supported at least in Applicant's Fig. 5, and the related descriptions (i.e., paragraphs [68]-[69]).

Claims 11-20 were previously rejected under 35 U.S.C. § 101 as being non-statutory and allegedly directed to non-statutory subject. The Applicant points out that the rejection under 35 U.S.C. § 101 was withdrawn per Examiner's Answer mailed on October 21, 2008.

Claims 1-7, 9-17, and 29-31 are rejected under 35 U.S.C. § 102(e) as being anticipated by USP 6,587,680 ("Laurila"). Claims 8, 18, and 28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Laurila in view of USP 6,651,105 ("Bhagwat"). The Applicant respectfully submits that claims 1-37 define patentable subject matter in view of the following amendments and remarks.

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I. REJECTION OF CLAIMS 11-20 UNDER 35 U.S.C. § 101

The Applicant gratefully acknowledges the withdrawal of the rejection of claims 11-20 under 35 U.S.C. § 101 per Examiner's Answer mailed on October 21, 2008.

REJECTION UNDER 35 U.S.C. § 102

II. Laurila Does Not Anticipate Claims 1-7, 9-17, and 29-31

A claim is anticipated only if each and every element set forth in the claim is found, either expressly or inherently, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of Calif.*, 814 F.2d 628, 631 (Fed. Cir. 1987); MPEP § 2131. The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989); MPEP § 2131. To anticipate, a reference must "**clearly and unequivocally disclose the claimed [invention]** or direct those skilled in the art to the [invention] without any need for picking, choosing and combining various disclosures not directly related to each other by the teachings of the cited reference." *Akzo v. U.S. Int'l. Trade Comm'n.*, 808 F.2d 1471, 1480 (Fed. Cir. 1986). In other words, to be anticipatory, the prior art reference "must not only disclose all elements of the claim within the four corners of the document, **but must also disclose those elements 'arranged as in the claim.'**" *Net MoneyIN*,

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Inc. v. Verisign, Inc., 545 F.3d 1359, 1369 (Fed. Cir. 2008), quoting *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983).

With these principles in mind, the Applicant now turns to the claim rejections in particular. Namely, the Applicant turns to the rejection of claims 1-7, 9-17, and 29-31 under 35 U.S.C. §102(e) as being anticipated by Laurila. Without conceding that Laurila qualifies as prior art under 35 U.S.C. 102(e), the Applicant respectfully traverses this rejection as follows.

A. Rejection of Independent Claims 1, 11 and 21

With regard to the rejection of independent claim 1 under 102(e), The Applicant submits that Laurila does not disclose or suggest at least the limitation of "servicing said access device without re-authenticating said access device by one of said second access point and said third access point based on said initial authentication," as recited in Applicant's claim 1.

The Examiner states the following in the Final Office Action (see p. 4) regarding Laurila:

"Laurila discloses a method for providing seamless connectivity and communication in a multi-band, multi-protocol network (abstract), the method comprising:

initially authenticating an access device upon said access device initiating communication with a first access point (fig. 3, col 8 lines 62-67, AP_{old} or the old access point that mobile terminal 12 is originally communicating and about to disconnect to hand-over to a new access point, or AP_{new} 114; SA or security association, read as authentication information, is retrieved from AP_{old}, suggesting

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that AP_old has stored authentication information of mobile terminal 12 for the original communication); providing authentication information related to said initial authentication to at least one of a second access point and a third access point (fig. 3, HO_request, a handover request containing authentication information is sent from AP_old to AP_new); and servicing said access device by one of said first access point, said second access point and said third access point based on said initial authentication (fig. 3, payload traffic or servicing can be resumed between the mobile terminal and the new AP)."

In addition, the BPAI (06/23/11) Decision on Appeal (DOA) states the following (see pp. 5-6):

"Appellants contend that Ala-Laurila does not describe "providing authentication information related to said initial authentication to at least one of a second access point and a third access point" as recited in claim 1. Appellants also contend that Ala-Laurila does not describe "servicing said access device by one of said first access point, second access point and said third access point based on said initial authentication" as recited in claim 1. In particular, Appellants contend that Ala-Laurila's security association parameter exchange procedure is separate and independent of the authentication procedure using challenges and responses. According to Appellants, no security association information is used in any of the authentication messages throughout the entire authentication process. App. Br. 10-15.

Ala-Laurila describes generating an authentication key or security association for a mobile terminal and an access point, which is used by the access point to authenticate the mobile terminal. Col. 4, 11. 33-45; col. 5, 11. 43-50. Ala-Laurila further describes transferring the authentication key from an old access point to a new access point during a handover. Col. 5, 11. 51-58; col. 8, 11. 23-29. The authentication key is "authentication information related to said initial authentication" within the meaning of claim 1. Therefore, transferring the authentication key to a second access point as disclosed by Ala-Laurila describes "providing authentication information related to said initial authentication to at least one of a second access point and a third access point" as

recited in claim 1. Further, the first access point described by Ala-Laurila services the mobile terminal based on the initial authentication. Therefore, Ala-Laurila describes "servicing said access device by one of said first access point, second access point and said third access point based on said initial authentication" as recited in claim 1.

In the Reply Brief, Appellants contend that Ala-Laurila's security associations are only used for purposes of minimizing the need of exchanging security messages, but only after device authentication has taken place. According to Appellants, the authentication information is not related in any way to the initial authentication. Reply Br. 5. However, the security association that is transferred as described by Ala-Laurila includes an authentication key, which is used in the initial authentication. Col. 4, 11. 33-41; col. 5, 11. 43-58. "

To summarize, the Examiner equates Laurila's security association (SA) information (which functions as an authentication key or security association for a mobile terminal (12) and an access point AP_old (14) in old cell (18)) to Applicant's "initial authentication".

The Examiner further equates Laurila's (see col. 4, 11. 33-45; col. 5, 11. 43-50) transferring the SA information (the alleged "initial authentication") from the old access point AP_old (14) (the alleged "first AP") to new access point AP_new (114) (the alleged "second AP") to authenticate the mobile terminal (12) (the alleged "access device") to Applicant's "providing authentication information related to said initial authentication to at least one of a second access point and a third access point," as recited in Applicant's claim 1.

The Examiner finally equates Laurila's "handoff" process, namely, the new access point AP_new (114) (the alleged "second AP") using the transferred SA information (the alleged "initial authentication") from the old access point AP_old (14) (the alleged "first AP") for re-authenticating the mobile terminal (12) (the alleged "access device") to begin a new service to the mobile terminal (12) (the alleged "access device"), to "servicing said access device by one of said first access point, said second access point and said third access point based on said initial authentication," as recited in Applicant's claim 1.

Applicant's claim 1, however, has been amended, and now reads "servicing said access device without re-authenticating said access device by one of said second access point and said third access point based on said initial authentication". In other words, Applicant's second or third AP provides a "**seamless**" connection to the access device, which does not require the access device to be re-authenticated. Laurila, on the contrary, discloses the exact opposite. For example, the Examiner is referred to Laurila's Figs. 2-3 below:

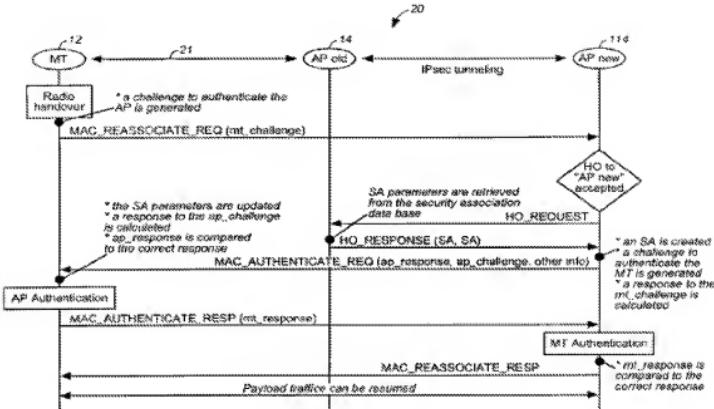


FIG. 3

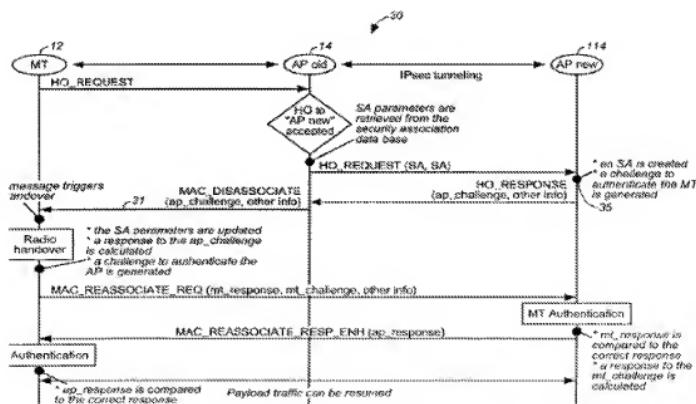


FIG. 3

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As seen, Laurila's Figs. 2-3 clearly disclose that the new access point AP_new (114) (the alleged "second AP") and the mobile terminal (12) perform a re-authentication process through a series of sending challenges and responses, using the SA information (the alleged "initial authentication") transferred from the old access point AP_old (14) (the alleged "first AP"). In this regard, Laurila at least does not disclose or suggest "servicing said access device without re-authenticating said access device by one of said second access point and said third access point based on said initial authentication," as recited in Applicant's claim 1. Laurila, therefore, does not anticipate Applicant's claim 1, and claim 1 is submitted to be allowable.

Independent claims 11 and 21 are similar in many respects to independent claim 1. Therefore, the Applicant respectfully submits that claims 11 and 21 are also allowable at least for the reasons stated above with regard to claim 1, and respectfully requests that the rejection of claims 1, 11 and 21 under 35 U.S.C. § 102(e) be withdrawn.

B. Dependent Claims 2-7, 9-10, 12-17, 19-20, 22-27 and 29-31

Dependent claims 2-7, 9-10, 12-17, 19-20, 22-27 and 29-31 depend directly or indirectly from independent claims 1, 11 and 21, respectively. Consequently, claims 2-7, 9-10, 12-17, 19-20, 22-27 and 29-31 are submitted to be allowable at least for the reasons stated above with regard to claim 1. The Applicant

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respectfully requests that the rejection of claims 2-7, 9-10, 12-17, 19-20, 22-27 and
29-31 under 35 U.S.C. § 102(e) be withdrawn.

REJECTION UNDER 35 U.S.C. § 103

Requirements For A *Prima Facie* Case Of Obviousness

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure ("MPEP") states the following:

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

See MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977, 988, 78 U.S.P.Q.2d 1329, 1336 (Fed. Cir. 2006), and *KSR Int'l Co. v. Teleflex Inc.*, 82 U.S.P.Q.2d at 1396 (quoting Federal Circuit statement with approval) (emphasis added).

If a *prima facie* case of obviousness is not established, the Applicants are under no obligation to submit evidence of nonobviousness:

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. **If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.**

See MPEP at § 2142 (emphasis added).

Additionally, "[i]f the examiner is able to render a claim obvious simply by saying it is so, neither the Board nor [the Federal Circuit] is capable of reviewing

that determination. ... If there is neither record evidence nor detailed examiner reasoning, the Board should not conclude that ... claims are obvious." *See In re Vaidyanathan*, Appeal 2009-1404 at pages 18-19 (Fed. Cir. May 19, 2010) (nonprecedential).

"[T]he Board cannot simply reach conclusions based on its own understanding or experience – or on its assessment of what would be basic knowledge or common sense. Rather, the Board must point to **some concrete evidence in the record in support of these findings.**" *See In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001) (emphasis added).

With those principles in mind, the Applicants now turn to the claim rejections, in particular.

III. The Proposed Combination of Laurila in view of Bhagwat Does Not Render Claims 8, 18, and 28 Unpatentable

Regarding claims 8, 18, and 28, the Office Action (see p. 8) states the following:

"For claims 8, 18, and 28, Laurila discloses the invention substantially as in claims 1, 11, and 21. Laurila does not disclose distributing said initial authentication information to said second access point and said third access point upon said initial authenticating.

However, **Bhagwat discloses** distributing said initial authentication information to said second access point and said third access point upon said initial authenticating (fig.5, authentication server, col 7 lines 34-42, col. 10 lines 14-34, **a centralized authentication server stores authentication information of mobile devices as they move from one access point to the next**)...to implement a centralized authentication server for distributing authentication information in a dynamic fashion among PPP backend servers and further access points (Bhagwat, col. 10 lines 22-26)."

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In addition, the BPAI (06/23/11) Decision on Appeal (DOA) states the following (see pp. 10-11):

Appellants contend that neither Ala-Laurila nor Bhagwat teaches "distributing said initial authentication information to said second access point and said third access point upon said initial authenticating" as recited in claim 8. App. Br. 27-28. Appellants' contention appears based on the premise that "distributing ... upon said initial authenticating" is somehow different than distributing a security association after initially authenticating a mobile terminal.

However, Appellants have not provided a definition of "distributing said initial authentication information to said second access point and said third access point upon said initial authenticating" that excludes sending the security association to second and third access points after initially authenticating the mobile terminal as described by Ala-Laurila. Nor have Appellants provided evidence or persuasive argument to distinguish "distributing said initial authentication information to said second access point and said third access point upon said initial authenticating" from sending the security association to second and third access points after initially authenticating the mobile terminal. We find that the broadest reasonable interpretation of the "distributing" limitation encompasses sending a security association to multiple access points after initially authenticating a mobile terminal as described by Ala-Laurila. In the Reply Brief, Appellants contend that Bhagwat only teaches retrieving authentication information as a device moves from one access point to another, but does not teach distributing authentication information to at least two other access points. According to Appellants, retrieving information by device B is different from distributing information by device A to device B. Reply Br. 8-9. Appellants have not provided a definition of distributing authentication information to at least two other access points that excludes retrieving authentication information as taught by Bhagwat."

The Applicant points out that both the arguments of the Final Office Action and the Decision of Appeal are moot in view of Applicant's claim 1 (as amended).

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More specifically, irrespective of whether or not Applicant's claim 8 recites that the initial authentication information of the first access point is distributed without any retrieval request from both the second access point and third access point, the fact remains that Laurila's Figs 2-3 clearly disclose the requirement of re-authenticating the mobile terminal (the alleged "access device") by either the second or the third access point.

Likewise, Bhagwat (see col. 10, ll. 27-30) discloses a PPP server retrieves the authentication information of a mobile user from a central server for the purpose of carrying out re-authentication when the mobile user migrates to another access point. In this regard, Bhagwat also does not overcome the deficiencies of Laurila.

Moreover, dependent claims 8, 18 and 28 depend from independent claims 1, 11 and 21, respectively. Consequently, claims 8, 18 and 28 are also respectfully submitted to be allowable at least for the reasons stated above with regard to claim 1. The Applicant respectfully requests that the rejection of claims 8, 18 and 28 under 35 U.S.C. § 103(a) be withdrawn.

IV. New Claims 32-37

The new dependent claims 32-37 are supported at least in Applicant's Fig. 5, and the related descriptions (i.e., paragraphs [68]-[69]). Dependent claims 32-

37 depend directly or indirectly from independent claims 1, 11 and 21, respectively. Consequently, claims 32-37 are submitted to be allowable at least for the reasons stated above with regard to claim 1.

In addition, regarding new claims 32, 34 and 36, the Applicant further points out that both Laurila (see Figs. 2-3) and Bhagwat (see col. 10, ll. 27-30) disclose retrieving the alleged "initial authentication" only when the mobile user begins to migrate to another access point. In this regard, Laurila and Bhagwat do not disclose or suggest "said distributing of said initial authentication information to said second access point and said third takes place upon said access device initiating communication or authentication with said first access point." as recited in Applicant's claims 32, 34 and 36. Claims 32, 34 and 36 are submitted to be allowable.

In addition, regarding new claims 33, 35 and 37, the Applicant further points out that Laurila (see Figs. 2-3) does not disclose any updating of the SA authentication information (the alleged "initial authentication") is caused by the other access point (i.e., AP_old (14) or the AP_New (114)). Bhagwat (see col. 10, ll. 27-30) discloses that the alleged "initial authentication" is stored in only the central server. In this regard, Bhagwat also does not disclose any updating of the alleged "initial authentication" is caused by the other access point.

In this regard, Laurila and Bhagwat do not disclose or suggest "updating said initial authentication information within said first access point, said second

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access point or said third access point, wherein said updating is initiated by a different access device selected from anyone of said first access point, said second access point and said third access point," as recited in Applicant's claims 33, 35 and 37. Claims 33, 35 and 37 are submitted to be allowable.

Furthermore, the Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of claims 1-37, should such a need arise.

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CONCLUSION

Based on at least the foregoing, the Applicant believes that all claims 1-37 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and requests that the Examiner telephone the undersigned Patent Agent at (312) 775-8093.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

Date: August 22, 2011

/ Frankie W. Wong /

Frankie W. Wong
Registration No. 61,832
Patent Agent for Applicant

MCANDREWS, HELD & MALLOY, LTD.
500 WEST MADISON STREET, 34TH FLOOR
CHICAGO, ILLINOIS 60661
(312) 775-8093 (FWW)